



Clinical Evaluation of Kikkishar Ghrita and Lepa in the Management of Kikkis (Striae Gravidarum)

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ABSTRACT:

Background: Striae gravidarum (Kikkisas) is a common skin condition during pregnancy, impacting women's physical appearance and psychological well-being. Conventional treatments offer limited efficacy and may not be safe during pregnancy. Ayurvedic medicine provides natural, holistic alternatives such as Kikkishar Ghrita (oral) and Kikkishar Lepa (topical), which were evaluated in this clinical study.

Aim: To clinically assess the efficacy of Kikkishar Ghrita and Kikkishar Lepa in the management of Kikkis (Striae gravidarum).

Methodology: A prospective, 'open-label, interventional study was conducted at the Department of Prasuti Evum Stri Rog, Nitishwar Ayurved Medical College, Muzaffarpur, Bihar. Ninety pregnant women (aged 20–40 years) were randomly divided into two groups: Group A received oral Kikkishar Ghrita and Group B received topical Kikkishar Lepa for one month. Assessments were based on Ayurvedic and modern dermatological parameters. Statistical analysis was performed using GraphPad Prism with significance at $p < 0.05$.

Results: Out of 90 participants, 42 completed treatment. Group B showed superior results: 55.56% achieved marked improvement, compared to none in Group A. Symptomatic relief in Group B included 93.33% reduction in itching and 90% in striae depth. Group A showed moderate improvements, especially in burning sensation and discoloration. Statistical analysis confirmed highly significant outcomes in both groups ($p < 0.001$), with Group B outperforming Group A in both subjective and structural parameters.

Conclusion: Kikkishar Lepa proved more effective than Kikkishar Ghrita for treating Kikkis, offering a safe, affordable, and effective Ayurvedic solution during pregnancy'.

1. Introduction

God has given every living being the power to reproduce. This sacred obligation is the first task all creatures must fulfill in order to sustain life [1]. With humans, this tremendous responsibility is given exclusively to women, thus, a woman's role in children's and women's health is indispensable for the survival of humankind. Ancient texts say: "Stri is made for reproduction"(Acharya Manu), "Stri is the vessel in which the foetus grows" (Amarkosa), "A Woman is the

source of progeny" (Acharya Charaka). In its desire for a better quality of life, mankind has systemically advanced (and continuously advances) health care systems, not just by diseases, but for living life as an ascent towards joy and meaningful existence with the spirit of the human being alive and healthy'.

Ayurveda enjoys an esteemed place among all systems of medicine. It has a reputation as being the most perfect and appropriate practice of medicine. Not only does Ayurveda encompass science, but it also contains



religion and philosophy as well. The use of the word religion refers to the belief and discipline associated with the status of being, in which the door of perception is open to all aspects of life. In the Ayurvedic tradition, the total life experience is seen as a sacred journey. The meaning of philosophy is the love of truth, and in Ayurveda; the truth is pure existence. Ayurveda considers every individual to a unique phenomenon; the source of all life.

A person is never separate from the cosmos since every individual is an embodiment of cosmic consciousness. The universal consciousness vibrations create the Sabdadi Tanmatras which conjoined together produce the five basic elements (Panchmahabhutas) [2]. Each of these elements is manifested into the three biological arrangements of Vata, Pitta, and Kapha that regulate structure, function, and disease in organisms. These arrangements mix and transform into bodily things like Dhatu and Mala; everything chimed together creates organs and systems and the whole body with Tvak (skin) being an important organ [3].

Kikkisa disease affects the skin of the abdomen, breasts, groin and back, which makes the study of Tvak (skin) a significant inquiry [4]. Tvak is an important protective and sensory organ and is treated as such a lot in Ayurvedic literature (from Vedas onward) but the descriptions are scattered. It is of both relevance and importance, and potentially even significance due to the rich microscopic details that are described alongside a plethora of Tvak vikaras (related disorders) that are described in classical literature. However, the missing discussion may be the etiology and mechanisms governing Kikkisa relative to the skin layer involved, which demonstrates that researched focus on this skin disorder is lacking. Kikkisa is historically defined in Ayurvedic classics, such as Brihatreyi, but not included in Sushruta Samhita the central text. There are scant instructions in Sarira Sthana of Chikara Samhita, Astanga Samgreha and Astanga Hridaya. Kikkisa generally happens during pregnancy and especially during the 7 month pregnancy, empowered during the second trimester. The health of a nation is largely dependent upon women who provide the basis for healthy communities. Any woman who has physical or psychological issues will influence her attitude and efficacy. Therefore, any woman with an issue that causes

psychical concern must be alleviated as soon as possible [5].

The woman is without question one of the most beautiful things in the world, and she deserves preventive care against a multitude of conditions such as Kikkisa, especially to a cosmetic degree [6,4]. However, if conditions develop, the treatment should restore her natural beauty. Skin diseases can produce horrible long-lasting implications and disturb the appearance of women during pregnancy. In addition to preventive and treatment solutions, the importance of offering beauty and preventive care cannot be overstated. Overall, the potential to develop a new branch of Cosmetic Science in Ayurveda is here, which has therapeutic natural options for skin and body care. Modern dermatology is a specialty across the globe, yet it is still not a strong and developed specialty which has satisfactory treatments for conditions such as Kikkisa, given the condition still employs steroid formulation that may be harmful. In order to reduce this gap in treatment between modern and preventative dermatology and Ayurvedic, it is helpful to combine Ayurvedic treatment with modern dermatological knowledge, especially to develop treatment plans for mother's skin conditions associated with pregnancy, such as Striae gravidarum. This will help us foster learning through experience and scientific understanding.

By studying both Ayurvedic, and modern medical systems together, we can practice medicine for the treatment of skin diseases and the maintenance of healthy, glowing skin that impacts self-esteem [2,3,7]. This study will bridge the gaps in understanding Kikkisa by looking at therapies in both Ayurvedic approaches and newer methods in the clinical setting while enhancing the field of dermatology and TVak Vigyana. Skin is not only important for its structure and function, but also in its cosmetic value and the perceived impressions it has on individuals and society. Our self-esteem is influenced by how we care for our skin, hair, and nails [5]. Ayurvedic approaches to skin care and treatment are spread across texts, but even if we were to recognize the mechanisms involved, it would be helpful to know if those formulations actually work. In addition, the basic notion of Prakriti (individual constitution)—established by the particular combination of the three Doshas (Vata, Pitta, Kapha) at the time of conception—is a vital component in Ayurveda. Prakriti affects the



characteristics of the skin and health overall, influencing personalized recommendations for treatment and lifestyle adjustments [7]. Skin characteristics, directly observable by practitioners, provide important cues for identification of Prakriti, which is foundational for the health of the patient and an important marker for identifying disease changes. In this global approach validated the relevance of skin diseases, personalizing care based on Prakriti, as well as the importance of integrating Ayurvedic and modern dermatological perspectives for understanding a holistic approach to skin health and beauty.

2. Methodology

2.1. Study Design

This was a prospective, open-label, interventional clinical study aimed at evaluating the efficacy of *Kikkishar Ghrita* and *Kikkishar Lepa* in the management of *Kikkis (Sotriae Gravidorum)*. The study included two parallel arms with patients divided equally into two groups receiving either oral *Ghrita* or external *Lepa* for one month.

2.2. Study Area

The research was conducted at the Department of Prasuti Evum Stri Rog, Nitishwar Ayurved Medical College & Hospital and P.G. Research Institute, Muzaffarpur, Bihar, India from February 2020 to January 2021

2.3. Study Participants

➤ Inclusion Criteria

- Women aged between 20 to 40 years.
- Patients showing clinical signs and symptoms of *Kikkis (Sotriae Gravidorum)* as recorded in the case proforma.
- Randomly selected patients regardless of caste, religion, or gravida status.
- Primi Gravidae included for preventive treatment.
- Multi Gravidae and Multipara included for curative treatment.

➤ Exclusion Criteria

- Women aged below 20 and above 40 years.
- Patients with pre-existing skin disorders.

- Patients suffering from chronic illnesses such as tuberculosis, cardiovascular diseases, jaundice, eclampsia, pre-eclampsia, epilepsy, diabetes.
- Cases with malignancy on the affected skin region.

➤ Withdrawal Criteria

Participants who voluntarily discontinued the treatment or failed to appear for final follow-up were excluded from the final analysis.

2.4. Sample Size

A total of 90 women diagnosed with *Kikkis* were enrolled. They were equally divided into two groups of participants each:

- **Group A** – Treated with *Kikkishar Ghrita* (Orally)
- **Group B** – Treated with *Kikkishar Lepa* (Topically)

2.5. Procedure

After obtaining informed consent, patients were evaluated based on Ayurvedic and modern parameters using a specially designed clinical proforma. Detailed personal history, obstetric history, physical examination, and laboratory investigations were recorded prior to initiating treatment. The raw materials for both *Kikkishar Ghrita* and *Lepa* were collected and prepared in the Department of Rasashastra & Bhaishajya Kalpana, as per references from *Charaka Samhita*, *Ashtanga Sangraha*, and *Ashtanga Hridaya*.

Group A (Oral Therapy) received *Kikkishar Ghrita* – a polyherbal medicated ghee prepared using ingredients like *Shatavari*, *Bala*, *Gokshura*, *Jivanti*, *Guduchi*, and *Ela*.

- **Dose:** 20 g/day in two divided doses
- **Duration:** 1 month
- **Route:** Oral
- **Follow-up:** After 1 month

Group B (Topical Therapy) received *Kikkishar Lepa* – a polyherbal paste made from equal parts of *Kutaja*, *Tulsi*, *Musta*, and *Haridra*.



- **Dose:** Quantity sufficient to cover the affected area (about 2 mm thick layer)
- **Duration:** 1 month
- **Route:** External application on abdomen (once daily in the morning)
- **Follow-up:** After 1 month

All participants were advised to avoid spicy and fermented foods, bakery items, over-eating, and mental stress. A wholesome diet with leafy vegetables and milk was recommended.

Laboratory Investigations included:

- **Blood Tests:** Blood group, Rh typing, Hemoglobin %, TLC, DLC, ESR
- **Urine and Stool Tests:** Routine and microscopic examinations

The clinical observations and symptomatic improvements were documented at baseline, mid-treatment, and at the end of therapy.

2.6. Statistical Analysis

Data obtained were statistically analyzed using GraphPad Prism 3 software. For parametric data, paired 't' test was employed; while non-parametric data were analyzed using Wilcoxon matched-pairs signed-rank test. Results were expressed as Mean, Standard Deviation (SD), and Standard Error (SE). Statistical significance was considered at $p < 0.05$.

3. Result

Table 1 presents the group-wise distribution of patients (N = 90) categorized under preliminary (Pr.) and curative (Cu.) phases for both Group-A and Group-B. A total of 45 patients were registered, with 12 each in both the preliminary and curative subgroups of Group-A, and 10 and 11 in the preliminary and curative subgroups of Group-B, respectively. Out of these, 42 patients successfully completed the treatment, including 11 each from Group-A (Pr. and Cu.), 10 from Group-B (Pr.), and 10 from Group-B (Cu.). A total of 3 patients left the treatment against medical advice (LAMA), comprising 1 each from Group-A (Pr. and Cu.) and 1 from Group-B (Cu.). This distribution highlights a high treatment completion rate with minimal dropout across the groups.

Table 1: Group-wise Distribution of Patients (N = 90)

Status	Group-A Pr.	Group-A Cu.	Group-B Pr.	Group-B Cu.	Total
Registered	12	12	10	11	45
Completed	11	11	10	10	42
LAMA	1	1	0	1	3

Table 2 presents the age-wise distribution of patients across different groups. The majority of patients (64 out of 90) belonged to the 20–25 years age group, with equal representation from Group-A and Group-C in both Pr. (pre-treatment) and Cu. (curative) categories. In the 26–30 years age group, a total of 16 patients were recorded, with a slightly higher number in the curative phase compared to the pre-treatment phase. The 31–35 years

age group included 10 patients, all of whom were in the curative phase, with no representation in the pre-treatment phase. Notably, no patients were recorded in the 36–40 years age group. This distribution indicates that the study population was predominantly young, with the highest concentration of cases in the 20–25 years age range.

Table 2: Age Wise Distribution of Patients

Age in Years	Group-A Pr.	Group-A Cu.	Group-C Pr.	Group-C Cu.	Total
20–25	12	12	10	11	45
26–30	11	11	10	10	42
31–35	1	1	0	1	3



20–25	22	11	20	11	64
26–30	0	7	2	7	16
31–35	0	5	0	5	10
36–40	0	0	0	0	0
Total	22	23	22	23	90

Table 3 presents the religion-wise distribution of patients across four subgroups: Group-A Pr., Group-A Cu., Group-C Pr., and Group-C Cu., with a total sample size of 90. Among the total participants, 61 (67.78%) were Hindus and 29 (32.22%) were Muslims. In Group-A, 34 patients were Hindus (20 in Pr. and 14 in Cu.) and

11 were Muslims (2 in Pr. and 9 in Cu.). In Group-C, 27 patients were Hindus (16 in Pr. and 11 in Cu.) and 18 were Muslims (7 in Pr. and 11 in Cu.). Overall, Hindus constituted the majority in both groups, although a relatively higher number of Muslims were seen in the curative subgroups of both Group-A and Group-C.

Table 3: Religion Wise Distribution of Patients

Religion	Group-A Pr.	Group-A Cu.	Group-C Pr.	Group-C Cu.	Total
Hindu	20	14	16	11	61
Muslim	2	9	7	11	29
Total	22	23	23	22	90

Table 4 presents the addiction (Vyasana) wise distribution of patients across Group-A and Group-C in both the Prakritika (Pr.) and Curative (Cu.) phases. Tea addiction was the most prevalent, reported in 74 patients, with 18 in Group-A Pr., 16 in Group-A Cu., 24 in Group-C Pr., and 16 in Group-C Cu. Coffee addiction was observed in 6 patients, mostly in Group-A, while tobacco

use was reported in 4 patients, exclusively in the curative phases of both groups. Notably, 6 patients reported having no addiction, all of whom belonged to Group-A. The total number of patients distributed across all addictions and groups was 90, indicating tea as the dominant addiction among the study participants.

Table 4: Addiction (Vyasana) Wise Distribution of Patients

Vyasana (Addiction)	Group-A Pr.	Group-A Cu.	Group-C Pr.	Group-C Cu.	Total
Tea	18	16	24	16	74
Coffee	2	2	0	2	6
Tobacco	0	2	0	2	4
No Addiction	2	2	0	2	6
Total	22	22	24	22	90

Table 5 presents the past contraceptive history-wise distribution of patients across different groups. A majority of the patients, totaling 51, reported no prior use of any contraceptive method, with the highest numbers observed in Group-A Pr. and Group-C Pr. Substantial use of the withdrawal method was seen in Group-C Cu. (11 patients), followed by smaller numbers in other groups, summing up to 18 patients. The use of oral contraceptive

(OC) pills was reported exclusively by 5 patients in Group-C Cu., while the use of Cu. T (intrauterine device) was most common in Group-C Cu. (7 patients) and Group-A Cu. (5 patients), making a total of 12. Condom use was minimal, reported by only 4 patients in Group-A, equally distributed between the Pr. and Cu. subgroups. This distribution indicates a predominance



of non-contraceptive users, with varied adoption of specific methods among the remaining patients.

Table 5: Past Contraceptive History Wise Distribution of Patients

P/C/H	Group-A Pr.	Group-A Cu.	Group-C Pr.	Group-C Cu.	Total
Nil	16	16	19	0	51
Withdrawal	5	0	2	11	18
OC Pills	0	0	0	5	5
Cu. T	0	5	0	7	12
Condom	2	2	0	0	4

Table 6 presents the total effect of therapy in Group A by comparing the occurrence of various cardinal signs and symptoms before and after treatment. The number of patients exhibiting symptoms like Kandu and Vidah significantly decreased from 30 to 6 and 25 to 5 respectively, showing an 80% reduction in both cases. Valivishesha showed the highest improvement with an

86.67% decrease, dropping from 15 cases to only 2 after treatment. Vaivarnyata reduced by 73.33%, while RSTS showed the least improvement with a 60% reduction. Overall, the total number of symptoms reported dropped from 90 before treatment to 19 after treatment, indicating a strong therapeutic effect.

Table 6: Total Effect of Therapy in Group – A

Cardinal Sign & Symptom	B.T. (Before Treatment)	A.T. (After Treatment)	% of Non-occurrence
Kandu	30	6	80%
Vidah	25	5	80%
Valivishesha	15	2	86.67%
Vaivarnyata	15	4	73.33%
RSTS	5	2	60%
Total	90	19	

Table 7 presents the total effect of therapy in Group B by comparing the number of patients exhibiting various cardinal signs and symptoms before treatment (B.T.) and after treatment (A.T.). The data shows a significant reduction in symptoms post-therapy, with Kandu decreasing from 45 to 3 patients, reflecting a 93.33% non-occurrence rate. Similarly, Vidah decreased from 15

to 3 patients (80% non-occurrence), Valivishesha from 10 to 1 patient (90%), Vaivarnyata from 10 to 2 patients (80%), and RSTS from 10 to 2 patients (80%). Overall, the therapy led to a substantial decrease in the presence of these symptoms, demonstrating its effectiveness in Group B.

Table 7: Total Effect of Therapy in Group – B

Cardinal Sign & Symptom	B.T.	A.T.	% of Non-occurrence
Kandu	45	3	93.33%
Vidah	15	3	80%
Valivishesha	10	1	90%
Vaivarnyata	10	2	80%
RSTS	10	2	80%



Total	90	11	
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Table 8 shows the total effect of therapy' in Group A (N=90) on various cardinal signs and symptoms. The table indicates significant relief in symptoms such as Kandu, Vidah, Vaivarnyata, and RSTS, with percentage reliefs of 60.00%, 73.79%, 54.46%, and 50.70%, respectively, all having highly significant p-values (< 0.001). The mean relief (\bar{X}) for these symptoms ranged

from 0.61 to 1.07, demonstrating notable improvement after therapy. However, Valivishesha showed minimal relief of only 7.58%, and the change was not statistically significant ($p > 0.10$), suggesting the therapy had little effect on this particular symptom. Overall, the data indicate that the 'therapy was effective in reducing most symptoms with strong statistical support.

Table 8: Total Effect of Therapy in Group – A (N=90)

Cardinal Sign & Symptom	B.T. Mean	A.T. Mean	\bar{X} (Relief)	% Relief	S.D.	S.E.	t	P
Kandu	1.05	0.42	0.63	60.00%	0.52	0.055	10.2	< 0.001
Vidah	1.45	0.38	1.07	73.79%	0.58	0.061	17.5	< 0.001
Valivishesha	1.32	1.22	0.1	7.58%	0.58	0.061	1.05	> 0.10
Vaivarnyata	1.12	0.51	0.61	54.46%	0.53	0.056	10.9	< 0.001
RSTS	1.42	0.7	0.72	50.70%	0.49	0.052	13.9	< 0.001

Table 9 shows the total effect of therapy' in Group B across various cardinal signs and symptoms. The mean scores before treatment (B.T. Mean) were notably higher than after treatment (A.T. Mean) for all symptoms, indicating improvement. The highest percentage relief was observed in Kandu with 85.51%, followed by Vidah at 76.67%, Vaivarnyata at 68.33%, RSTS at 68.03%, and

Valivishesha at 50.00%. The standard deviations and standard errors are relatively low, reflecting consistent results within the group. The t-values are high and the p-values are all less than 0.001, demonstrating that the improvements after 'therapy were statistically highly significant for all measured symptoms.

Table 9: Total Effect of Therapy in Group – B

Cardinal Sign & Symptom	B.T. Mean	A.T. Mean	\bar{X} (Relief)	% Relief	S.D.	S.E.	t	P
Kandu	1.38	0.2	1.18	85.51%	0.72	0.076	13.53	< 0.001
Vidah	1.2	0.28	0.92	76.67%	0.55	0.058	15.86	< 0.001
Valivishesha	1.3	0.65	0.65	50.00%	0.52	0.055	11.82	< 0.001
Vaivarnyata	1.2	0.38	0.82	68.33%	0.41	0.043	19.07	< 0.001



RSTS	1.47	0.47	1	68.03%	0.45	0.047	21.26	< 0.001
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Table 10 shows the overall effect of therapy in two curative groups, Group A and Group B, among a total of 90 patients. In Group A, 60% of patients experienced moderate improvement and 40% had mild improvement, with no patients showing marked or no improvement. In contrast, Group B had 55.56% of patients showing marked improvement, 26.67% moderate improvement,

and 17.78% mild improvement, with none showing no improvement. Overall, across both groups, 27.78% of patients achieved marked improvement, 43.33% moderate improvement, and 28.89% mild improvement, while no patients had no improvement, indicating a generally positive therapeutic effect.

Table 10: Overall Effect of Therapy in Curative Groups

Criteria	Group A	Group B	Total	Percentage
Marked Improvement (75–100%)	0 (0%)	25 (55.56%)	25	27.78%
Moderate Improvement (50–75%)	27 (60%)	12 (26.67%)	39	43.33%
Mild Improvement (25–50%)	18 (40%)	8 (17.78%)	26	28.89%
No Improvement (< 25%)	0 (0%)	0 (0%)	0	0%
Total Patients	45	45	90	100%

4. Discussion

The present study was conducted to evaluate the clinical efficacy of *Kikkishar Ghrita* and *Lepa* in the management of *Kikkis* (Striae gravidarum), with patients divided into two groups (Group A and Group B), each further categorized into preliminary (Pr.) and curative (Cu.) phases. The group-wise distribution (Table 1) revealed a high compliance rate, as 42 out of 45 enrolled patients completed the treatment, while only 3 patients were lost to follow-up. This high retention indicates tolerability and acceptance of the interventions delivered. Several studies have assessed different herbal and topical preparations to treat Striae gravidarum, and while there are results that align with those presented here, there are also significant contrasts. For example, earlier study undertook a clinical trial using herbal formulations containing *Centella asiatica*, vitamin E and collagen-inducing agents, which showed a 69.2% reduction in itchiness, 53.8% reduction in discolouration, and 41% improvement in depth of striae over an 8-week

period [6]. These results are notably similar to those presented in this current study, particularly in Group B, where *Kandu* and *Valivishesha* improved by 85.51% and 50.00%, respectively - indicating the efficacy of natural topical agents in remediating dermal elasticity and pigmentation. The statistically significant reduction of symptoms in both intervention groups in this study ($p < 0.001$), is resonant with Rashmi et al.'s statistically significant symptom regression findings ($p < 0.01$) indicating that herbal therapies may have beneficial impact.

Age-wise distribution (Table 2) indicated that the majority of the patients belonged to the 20–25-year age group (71.1%), aligning with existing literature which suggests that striae gravidarum is more prevalent among younger primigravida women due to rapid abdominal stretching and collagen immaturity [7]. The absence of patients in the 36–40 age group also supports the epidemiological trend of this condition being more common among younger women. Religious



demographics (Table 3) showed that Hindu patients predominated in both groups (67.78%), although Muslim representation was higher in the curative phases. This distribution reflects regional population characteristics and is unlikely to influence therapeutic outcomes. In compared study tretinoin 0.1 % cream with placebo for early striae and reported only a 20% reduction in length and width of striae, and no significant change in pigmentation or itch ($p > 0.05$) [7]. In comparison to this, Group B in our study achieved much better results with a 50% reduction in striae length/depth (Valivishesha) and 46.31% reduction in discoloration (Vaivarnyata) ($p < 0.001$). The findings of tretinoin in that study, compared to ours, could also be related to limited dermal penetration and possible side effects in pregnant women, pointing to the necessity for safer Ayurvedic options like *Kikkishar Ghrita* and *Lepa*.

The addiction-wise (Vyasana) distribution (Table 4) showed tea to be the most common stimulant consumed (82.2%). As lifestyle factors including caffeine consumption have been loosely associated with dermal dehydration, this might indirectly influence skin elasticity, though its direct correlation with *Kikkis* remains uncertain [9]. In another study, Trave evaluated laser therapy for established striae, found only 30 - 40% improvement in appearance and a high cost with low patient satisfaction, demonstrating the limitations of non-topical invasive methods [9]. In comparison, in our study, we had marked improvement in 55.56% of patients in Group B without any adverse reactions or taking any invasive measures, supporting the clinical practicability, safety, and acceptability of Ayurvedic topical therapies.

Contraceptive history analysis (Table 5) revealed that the majority of patients had no past contraceptive usage (56.7%). However, among those who had used contraception, the withdrawal method and intrauterine devices (Cu. T) were the most common. This history may offer insight into hormonal or structural factors influencing skin stretchability, but further exploration would be necessary to establish any causative association. Our study showed consistent and significant results in both groups, and more in Group B with both internal (Ghrita) and external (Lepa) formulations indicating this benefit with the synergy of concurrent topically and internally to isolated topical application.

Tables 6 and 7, showing the total symptomatic changes before and after treatment in Group A and B respectively, clearly demonstrate the effectiveness of both treatment modalities. In Group A, a notable reduction in cardinal symptoms such as *Kandu* (itching), *Vidah* (burning sensation), and *Vaivarnyata* (discoloration) was observed with 80%, 80%, and 73.33% non-occurrence respectively. Similarly, Group B displayed even more substantial improvements, with *Kandu* reduced by 93.33% and *Valivishesha* (striae length/depth) by 90%, highlighting the potential superior efficacy of the intervention used in Group B. In terms of symptomatic relief, Hajhashemi et al. (2018)-> used Aloe vera and almond oil massage, using these interventions to report a 64% decrease in itching and 58% decrease in discoloration- this is less than Group B outcome (85.51% for *Kandu* and 46.31% for *Vaivarnyata*) [10]. Our findings are greater than Hajhashemi et al. (2018) possibly due to the medicated ghee base (Ghrita) which aids in transdermal absorption and nourishment because of its Snigdhati and Sukshma properties as described in Ayurvedic texts.

Tables 8 and 9 present statistically significant improvements in most symptoms, with p values < 0.001 in almost all domains. Group A demonstrated highly significant improvement in *Vidah* (73.79%), *Kandu* (60.00%), and *Vaivarnyata* (54.46%), but minimal relief in *Valivishesha* (7.58%, $p > 0.10$), suggesting limitations in reversing the physical characteristics of striae. In contrast, Group B not only showed statistically significant improvement in all symptoms ($p < 0.001$), but also better mean relief scores across the board. The maximum percentage relief in Group B was seen in *Kandu* (85.51%) and *Valivishesha* (50.00%), indicating a more robust effect on both subjective discomfort and structural skin changes.

Finally, the overall therapeutic outcome (Table 10) highlights that no patient remained unimproved, underscoring the general efficacy of both interventions. However, Group B had a markedly higher rate of marked improvement (55.56%) compared to Group A (0%), while Group A predominantly exhibited moderate improvement (60%). This reinforces the observation that the treatment used in Group B was more efficacious in terms of both subjective and objective recovery from *Kikkis*.



Conclusion

This current clinical investigation affirms 'the substantial therapeutic value of Kikkshar Ghrita and Kikkshar Lepa for managing Kikkis (Striae gravidarum) with both therapeutic modes displaying favourable results. The results also displayed a large difference seen in Group B, who had received Kikkshar Lepa, as 55.56% of the patients noted marked improvement and significant reduction of Kandu, Vidah, and Valivishesha symptoms. Group A also had favorable results but showed the most improvement subjectively as patients rated their overall experience of significant improvement, but did not improve structurally' as demonstrated with a lowering of striae depth. The results were statistically significant ($P < 0.001$), thus demonstrating clinical validity of the findings. Given the safety, acceptability and effectiveness of these plant based therapies, the herbal transformations we used provide a holistic, safe, non-invasive alternative to modern medicine therapies that yield limited results or safety threats during pregnancy. Overall, this study reinforces the need for growth and exploration of Ayurvedic approaches in regards to obstetric dermatology, especially for the enhancement of maternal comfort, self-esteem, and skin health during pregnancy.

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